



AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the present application:

LISTING OF CLAIMS

Claims 1-60 (cancelled)

Claim 61. (currently amended) A method of requesting genomics Services from a Service Provider and providing genomics Services to a Client comprising:

collecting a plurality of samples of material derived from a plurality of biological sample sources

~~under control of said Client,~~

~~providing one or more~~ storing said plurality of biological samples in a substantially dry and immobilized state in an archive;

selecting one or more samples from said archive

identifying one or more genome sequences;

under control of said Service Provider,

obtaining said selected samples and said genome sequences;

providing one or more microarrays wherein ~~each of~~ said microarrays comprise probes complementary to ~~contains~~ at least one of said genome sequences;

amplifying at least a portion of said selected biological samples and applying at least a portion of at least one of said amplified biological samples to at least one of said microarrays to determine the presence of said one or more genome sequences; and,

under control of said Client,

receiving data representative of said applying step over the Internet.

Claim 62. (currently amended) The method of Claim 61 wherein said step of ~~providing one or more~~ storing and said selecting step ~~biological samples~~ comprises:

- under control of said Service Provider;
 - providing a repository of stored biological samples derived from mammalian tissue or blood and stored on fibrous media;
 - providing a catalog of corresponding to distinct samples stored in said repository;
- under control of said Client;
 - accessing said catalog; and,
 - selecting a subset of said biological samples from said catalog.

Claim 63. (previously added) The method of Claim 62, wherein said steps of providing a catalog and accessing said catalog occur over an Internet connection between said Client and said Service Provider.

Claim 64. (currently amended) A process for remotely selecting samples from a biological repository system comprising:

- under control of a Service Provider;
 - providing a database of said distinct samples derived from tissue or blood and stored in a substantially dry format in said biological repository system;
 - providing a network connection to said database accessible by a Client;
- under control of a Client;
 - accessing said database over said network; and,
 - selecting a subset of said samples from said repository system;
- under control of Service Provider or Client;
 - performing a genomic assay of at least a portion of said subset of said samples.

Claim 65. (currently amended) The process of Claim 64 wherein said biological repository system comprises a plurality of repositories in a plurality of geographic locations and said network is the Internet.

Claim 66. (currently amended) The process of Claim 64 wherein said database includes sample source clinical disease or phenotype records corresponding to at least a portion of said samples.

Claim 67. (currently amended) The process of Claim 64 wherein said database includes phenotype information corresponding to at least a portion of said samples, which information is a basis for said selection of said subset of samples.

Claim 68. (currently amended) A process for remotely conducting a genomics experiment comprising:

- under control of a Service Provider;

- providing a database of information corresponding to distinct biological samples derived from patient tissue or blood and stored in a substantially dry format in a biological repository;

- providing a network connection to said database accessible by a Client;

- under control of a Client;

- accessing said database over said network;

- selecting a subset of said samples from said biological repository based upon said information corresponding to said distinct samples;

- identifying a set of genomic sequences;

- under control of said Service Provider;

- determining if said genomic sequences are present in said samples;

- and,

- informing said Client of results of said determining step.

Claim 69. (currently amended) The process of Claim 68 further comprising under control of said Service Provider:

modifying hybridization probes complementary to said set of genomic sequences and repeating said determining step subsequent to said informing step.

Claim 70. (previously added) The process of Claim 68 further comprising identifying said samples with unique identifiers.

Claim 71. (withdrawn) A method for providing experimental biological Services to a Client comprising:

receiving a work order from said Client comprising a biological sample portion listing one or more biological samples and an assay portion listing one or more experiments based on said biological samples;

performing said one or more experiments on said one or more biological samples; and,

transmitting data representative of said performing step to said Client.

Claim 72. (withdrawn) The method of Claim 71 wherein said receiving step further comprises receiving said biological sample portion of said work order from a remote location.

Claim 73. (withdrawn) The method of Claim 71 wherein said transmitting step further comprises transmitting said data to a remote location.

Claim 74. (withdrawn) The method of Claim 71 wherein said receiving step further comprises receiving said biological sample portion of said work order over the Internet.

Claim 75. (withdrawn) The method of Claim 71 wherein said receiving step further comprises receiving said assay portion of said work order over the Internet.

Claim 76. (withdrawn) The method of Claim 71 wherein said transmitting step further comprises transmitting said data over the Internet.

Claim 77. (withdrawn) The method of Claim 71 wherein said assay portion of said work order comprises a list of genes.

Claim 78. (withdrawn) A method of designing a genomic experiment comprising the steps of:

- under control of a Service Provider;
 - providing access to a Client in a remote location to a database comprising medically relevant information corresponding to specific samples, said samples having specific gene regions;
- under control of a Client;
 - accessing the database from the remote location;
 - determining which of the information is useful in a genomic experiment;
 - requesting a probe-based assay for the experiment;
- under control of the Service Provider;
 - receiving the request from the Client;
 - providing an assay responsive to the request.

Claim 79. (withdrawn) The method of Claim 78 wherein:

- the medically relevant information is gene expression regulation information related to specific gene regions;
- the database is accessible through an Internet browser program;
- the assay comprises a multiplicity of probes useful for recognition of the specific gene regions;
- the assay is selected by Client from among pre-specified assay products made available to Client by the Service Provider.

Claim 80. (withdrawn) The method of Claim 78 wherein responsive to the request for a probe-based assay,

the Service Provider designs and provides to the Client a custom assay.